

Figure S1: Boxplots comparing the saliva miRNAs in the cases group versus the controls group. The p-value refers to the two-tailed Mann–Whitney test.

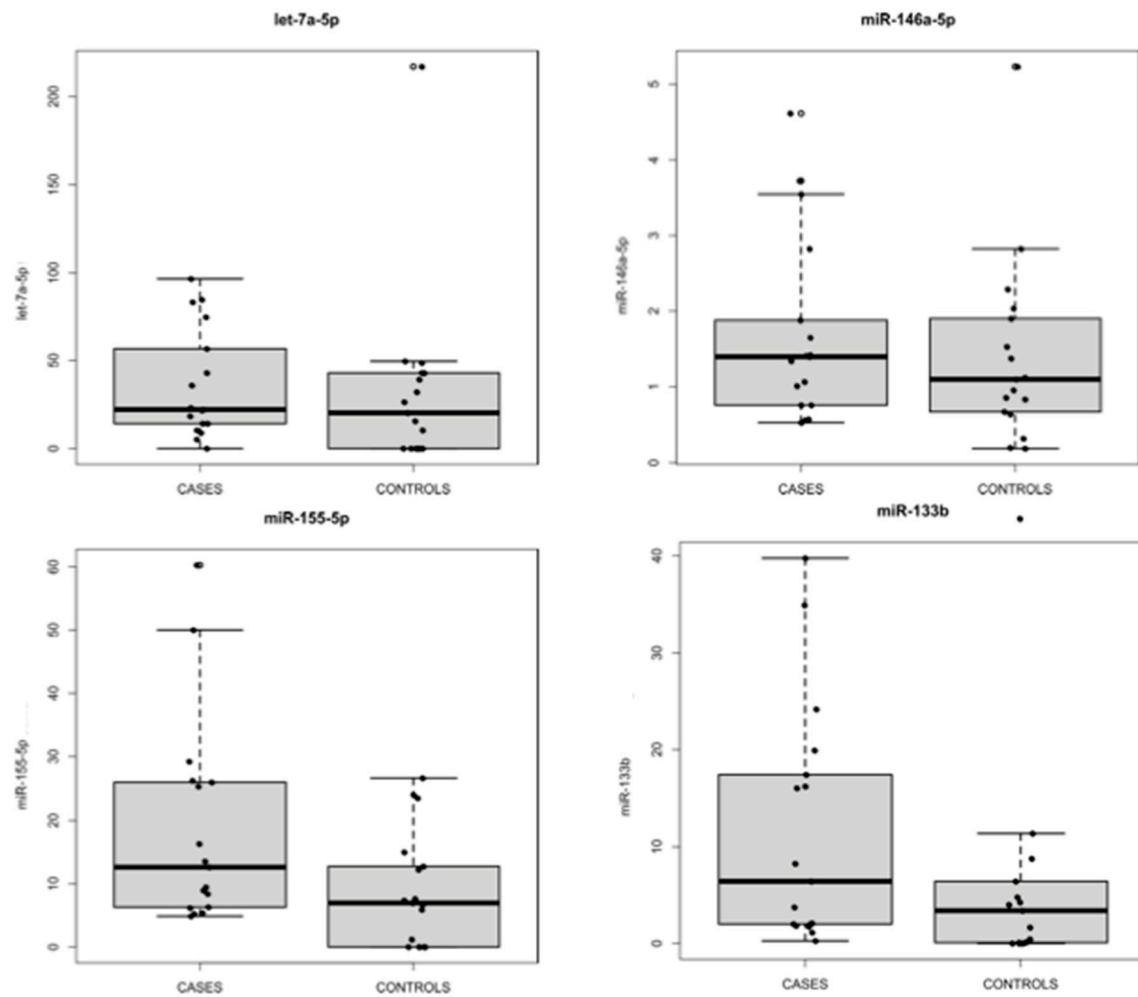


Table S1: Significantly enriched GO terms of the hub genes of the miRNAs (the GO terms are arranged according to their p-values, in descending order).

GO	GO ID	GENES	P-value	FDR
Biological process				
Positive regulation of miRNA transcription	1902895	<i>EGFR, HIF1A, RELA, SMARCA4, TP53</i>	9,60E-09	5,20E-06
Positive regulation of transcription by RNA polymerase II	0045944	<i>EGFR, HIF1A, IGF1, RELA, SIRT1, SMARCA4, TP53</i>	4,70E-06	1,20E-03
Positive regulation of DNA-templated transcription	0045893	<i>EGFR, HIF1A, IGF1, RELA, SMARCA4, TP53</i>	6,80E-06	1,20E-03
Negative regulation of neuron apoptotic process	0043524	<i>CCND1, HIF1A, PIK3CA, SIRT1</i>	3,60E-05	4,40E-03
Positive regulation of cell population proliferation	0008284	<i>EGFR, IGF1, SIRT1, SMARCA4, RELA</i>	4,90E-05	4,40E-03
Negative regulation of apoptotic process	0043066	<i>EGFR, IGF1, RELA, SIRT1, TP53</i>	4,90E-05	4,40E-03
Positive regulation of phosphatidylinositol 3-kinase/protein kinase B signal transduction	0051897	<i>EGFR, IGF1, PIK3CA, SIRT1</i>	7,30E-05	5,60E-03
Positive regulation of smooth muscle cell proliferation	0048661	<i>EGFR, IGF1, PIK3CA</i>	2,60E-04	1,80E-02
Negative regulation of gene expression	0010629	<i>HIF1A, IGF1, PIK3CA, SIRT1</i>	3,00E-04	1,80E-02
Negative regulation of transcription by RNA polymerase II	0000122	<i>CCND1, SIRT1, SMARCA4, RELA, TP53</i>	5,80E-04	3,10E-02
Molecular function				
Enzyme binding	0019899	<i>CCND1, EGFR, HIF1A, RELA, SIRT1, TP53</i>	3,10E-07	3,60E-05
p53 binding	0002039	<i>HIF1A, SIRT1, SMARCA4, TP53</i>	3,90E-06	2,30E-04
Histone deacetylase binding	0042826	<i>CCND1, HIF1A, RELA, TP53</i>	2,50E-05	9,90E-04
Protein kinase binding	0019901	<i>CCND1, EGFR, ELAVL1, HIF1A, RELA</i>	5,10E-05	1,50E-03
Ubiquitin protein ligase binding	0031625	<i>EGFR, HIF1A, RELA, TP53</i>	3,20E-04	7,60E-03
Chromatin binding	0003682	<i>EGFR, RELA, SMARCA4, TP53</i>	1,50E-03	2,90E-02
Transcription corepressor activity	0003714	<i>CCND1, SIRT1, SMARCA4</i>	3,80E-03	6,40E-02
General transcription initiation factor binding	0140296	<i>RELA, TP53</i>	5,10E-03	7,50E-02
Lysine-acetylated histone binding	0070577	<i>SIRT1, SMARCA4</i>	1,30E-02	1,60E-01
RNA polymerase II cis-regulatory region sequence-specific DNA binding	0000978	<i>HIF1A, RELA, SIRT1, TP53</i>	1,80E-02	1,90E-01
Cellular component				
Chromatin	0000785	<i>HIF1A, RELA, SIRT1, SMARCA4, TP53</i>	9,40E-04	5,30E-02
Cytoplasm	0005737	<i>CCND1, EGFR, ELAVL1, HIF1A, PIK3CA, RELA, SIRT1, TP53</i>	2,50E-03	5,30E-02
Nucleoplasm	0005654	<i>CCND1, ELAVL1, HIF1A, RELA, SIRT1, SMARCA4, TP53</i>	2,50E-03	5,30E-02
Protein-containing complex	0032991	<i>EGFR, IGF1, SMARCA4, TP53</i>	2,50E-03	5,30E-02
Nucleus	0005634	<i>CCND1, EGFR, ELAVL1, HIF1A, RELA, SIRT1, SMARCA4, TP53</i>	3,90E-03	6,60E-02
Cytosol	0005829	<i>CCND1, ELAVL1, HIF1A, PIK3CA, RELA, SIRT1, TP53</i>	1,50E-02	2,10E-01
Transcription repressor complex	0017053	<i>CCND1, TP53</i>	2,60E-02	2,90E-01

Euchromatin	0000791	<i>HIF1A, SIRT1</i>	2,70E-02	2,90E-01
PML body	0016605	<i>SIRT1, TP53</i>	4,70E-02	4,40E-01

Table S2: Significantly enriched KEGG pathway terms of the target genes of the miRNAs (the pathways are arranged according to their p-values, in descending order).

KEGG pathway	KEGG ID	GENES	P-value
Prostate cancer	hsa05215	<i>cyclin D1 (CCND1)</i>	1,80E-08
		<i>epidermal growth factor receptor (EGFR)</i>	
		<i>insulin-like growth factor 1 (IGF1)</i>	
		<i>phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha (PIK3CA)</i>	
		<i>RELA proto-oncogene, NF-kB subunit (RELA)</i>	
Melanoma	hsa05218	<i>tumor protein p53 (TP53)</i>	5,20E-07
		<i>cyclin D1 (CCND1)</i>	
		<i>epidermal growth factor receptor (EGFR)</i>	
		<i>insulin-like growth factor 1 (IGF1)</i>	
		<i>phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha (PIK3CA)</i>	
Glioma	hsa05214	<i>tumor protein p53 (TP53)</i>	6,20E-07
		<i>cyclin D1 (CCND1)</i>	
		<i>epidermal growth factor receptor (EGFR)</i>	
		<i>insulin-like growth factor 1 (IGF1)</i>	
		<i>phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha (PIK3CA)</i>	
Pancreatic cancer	hsa05212	<i>tumor protein p53 (TP53)</i>	6,50E-07
		<i>RELA proto-oncogene, NF-kB subunit (RELA)</i>	
		<i>alpha (PIK3CA)</i>	
		<i>phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit</i>	
		<i>epidermal growth factor receptor (EGFR)</i>	
Proteoglycans in cancer	hsa05205	<i>cyclin D1 (CCND1)</i>	7,30E-07
		<i>hypoxia inducible factor 1 subunit alpha (HIF1A)</i>	
		<i>insulin-like growth factor 1 (IGF1)</i>	
		<i>epidermal growth factor receptor (EGFR)</i>	
		<i>phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha (PIK3CA)</i>	
Longevity regulating pathway	hsa04211	<i>tumor protein p53 (TP53)</i>	1,20E-06
		<i>sirtuin 1 (SIRT1)</i>	
		<i>RELA proto-oncogene, NF-kB subunit (RELA)</i>	
		<i>alpha (PIK3CA)</i>	
		<i>phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit</i>	
FoxO signaling pathway	hsa04068	<i>insulin-like growth factor 1 (IGF1)</i>	1,80E-06
		<i>hypoxia inducible factor 1 subunit alpha (HIF1A)</i>	
		<i>epidermal growth factor receptor (EGFR)</i>	
		<i>cyclin D1 (CCND1)</i>	
		<i>sirtuin 1 (SIRT1)</i>	
HIF1-1 signaling pathway	hsa04066	<i>phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha (PIK3CA)</i>	2,60E-06
		<i>insulin-like growth factor 1 (IGF1)</i>	
		<i>hypoxia inducible factor 1 subunit alpha (HIF1A)</i>	
		<i>epidermal growth factor receptor (EGFR)</i>	

Pathways in cancer	hsa05200	<i>RELA proto-oncogene, NF-kB subunit (RELA)</i>	3,40E-06
		<i>cyclin D1 (CCND1)</i>	
		<i>epidermal growth factor receptor (EGFR)</i>	
		<i>hypoxia inducible factor 1 subunit alpha (HIF1A)</i>	
		<i>insulin-like growth factor 1 (IGF1)</i>	
		<i>phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha (PIK3CA)</i>	
		<i>RELA proto-oncogene, NF-kB subunit (RELA)</i>	
		<i>tumor protein p53 (TP53)</i>	
		<i>cyclin D1 (CCND1)</i>	
		<i>ELAV-like RNA binding protein 1(ELAVL1)</i>	
AMPK signaling pathway	hsa04152	<i>insulin-like growth factor 1 (IGF1)</i>	4,10E-06
		<i>phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha (PIK3CA)</i>	
		<i>sirtuin 1 (SIRT1)</i>	